

$\frac{d}{dt} \left( \frac{\partial L}{\partial \dot{x}} \right) = \frac{\partial L}{\partial x}$

A test slide for the calibration, characterization, standardization, use and study of photon and electron microscopes. The slide is created by forming patterns with specific types of geometries on suitable substrates and these slides provide a standard for comparison of image forming capability of any type of microscope imaging system including, without limitation, light, UV, and X-ray photon microscopical imaging systems operating in transmission or reflection modes, and other microscope techniques. Microscopists can employ one of these slides to compare images of the slide which have been produced by the microscope system under consideration with a known, accurate, image of the slide to better understand the fidelity and accuracy of the microscope system under consideration. The test patterns can also comprise reference images which can be images created by a graphic artist or the like or which can be actual images of samples, these images being either two dimensional or three dimensional.